CLAIMS:

5

- 1. A method of assessing the cognitive aptitude of a subject to a predetermined task, the method including the steps of:
 - (i) presenting to the subject a group of cognitive tasks;
- (ii) detecting brain response signals from the subject during presentation of said group of cognitive tasks;
- (iii) calculating SSVEP amplitude, phase and/or coherence responses from said brain response signals; and
- 10 (iv) comparing said SSVEP responses to known SSVEP responses obtained from individuals with high and/or low aptitudes to said predetermined task in order to assess the subject's aptitude for said predetermined task.
- 2. A method as claimed in claim 1 wherein including the step of presenting said group of cognitive tasks to said individuals in order to obtain said known SSVEP responses.
 - 3. A method as claimed in claim 1 or 2 wherein the cognitive tasks are selected so that they place demands on the subject which are similar to demands experienced when carrying out the predetermined task.

20

4. A method as claimed in claim 3 wherein the cognitive tasks are selected so that they place one or more of the following demands on the subject: attention, analytical thinking, holistic thinking, verbal thinking, visuo-spatial thinking, working memory, recognition memory and identifying emotional expressions.

25

- A method as claimed in any one of claims 1 to 4 including the steps of: repeating the presentation of said cognitive tasks in order to calculate multiple SSVEP responses;
- statistically analysing said SSVEP responses in order to determine statistically significant changes in SSVEP amplitude, phase and/or coherence; and

comparing said statistically significant changes to said known SSVEP responses in

PCT/AU2004/001100

order to assess the subject's aptitude for said predetermined task.

WO 2005/018449

- 6. A method as claimed in any one of claims 1 to 5 wherein the step of comparing said SSVEP responses to known SSVEP responses includes the step of assessing the subject's thinking style.
- 7. A method as claimed in any one of claims 1 to 6 wherein steps (i), (ii) and (iii) are performed at a local site and wherein step (iv) is performed at a remote site.
- 10 8. A method as claimed in claim 7 including the step of maintaining a database of said known SSVEP responses at said remote site.
- 9. A method as claimed in claim 8 including the step of communicating the amplitude, phase and/or coherence SSVEP responses from the local site via the Internet to said remote site.
 - 10. Apparatus for assessing the cognitive aptitude of a subject to a predetermined task, the apparatus including:
 - (i) means for presenting to the subject a group of cognitive tasks;
- 20 (ii) means for detecting brain response signals from the subject during presentation of said group of cognitive tasks;
 - (iii) means for calculating SSVEP amplitude, phase and/or coherence responses from said brain response signals; and
- (iv) means for comparing said SSVEP responses to known SSVEP responses 25 obtained from individuals with high and/or low aptitudes to said predetermined task in order to assess the subject's aptitude for said predetermined task.
- 11. Apparatus as claimed in claim 10 wherein said means for presenting, said means for detecting and said means for calculating are located at a local site and said means for comparing is located at a remote site and wherein the apparatus includes coupling means for coupling said means for calculating to a communications network for transmitting said

SSVEP amplitude, phase and/or coherence responses to said means for comparing via the network.

12. Apparatus as claimed in claim 11 wherein the coupling means includes a modem and the network is the Internet.